Macroscopic pK_as of Cysteine

Cys⁺¹
$$pK_{a1} = 1.71$$
 Cys⁰ $pK_{a2} = 8.33$ Cys⁻¹ $pK_{a3} = 10.78$ Cys⁻²

Microscopic pK_as of Cysteine

$$pK_{a,S} = 8.53$$

$$pK_{a,N'} = 10.03$$

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$$pK_{a,N'} = 10.36$$

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pK_as of Glycine

$$H_3N^{\bigoplus}$$
 OH $pK_{a1} = 2.35$ H_3N^{\bigoplus} O $pK_{a2} = 9.87$ H_2N O